

An All Sky Cirrus Confusion Noise Map for WIRE

T. N. Gautier

Jet Propulsion Laboratory, USA

California Institute of Technology

The Wide Field Infrared Explorer (WIRE) is a Small Explorer (SMEX) satellite scheduled for launch in 1998 which will carry out a sky survey of at least 100 square degrees in the wavelength regions of $9\text{-}15\mu\text{m}$ and $21\text{-}27\mu\text{m}$ with spatial resolution of ≈ 20 arcsec and sensitivity exceeding 0.6 mJy (Schember, *et al.* 1996). At this sensitivity level WIRE observations can be seriously affected by the confusion noise contribution from the infrared cirrus emission, so the WIRE survey must be planned with some knowledge of the expected level of cirrus confusion.

Production of a cirrus confusion noise map with 0.5 degree resolution based on the spatial power spectral density of the cirrus emission in the IRAS/ISSA data is in progress using the method described in Gautier, *et al.*, 1992. Spatially resolved power spectra density data is obtained from the ISSA maps with a wavelet transform technique.

References

Schember, H., *et al.*, *The Wide Field Infrared Explorer*, 1996, Presented at the Infrared Technology and Applications XXII Conference, SPIE, Orlando, Florida, USA, April 1996.

Gautier, T. N., Boulanger, F., Pérault, M. and Puget, J. L., 1992, *AJ*, **103**, 1313.